

## REMARKS

The Applicants respectfully request reconsideration of the restriction requirement. In the event that the restriction requirement is maintained, Applicants elect Group II, i.e. claim(s) in part 1-8, 11-14, 17-25 and 27-30, drawn to organometallic dendrimers of formula (I) represented by compound A8 disclosed in figure 4 and methods of using those dendrimers.

According to Rules 13.1 and 13.2 PCT, the requirement of unity of invention is fulfilled when the groups of inventions share one or more "special technical features" that define a contribution over the art.

In the present case, all of the claimed subject matter is so linked by the structural definition of the organometallic dendrimers in claim 1. In particular, the claimed subject matter is linked by the requirement that the dendrimer is of formula (I), with a metal complex core of formula  $M(X)_x(Y)_z$ , wherein the structure of the dendrimer is such that "no hemisphere of a notional sphere centred on M and containing the dendrimer is devoid of a said first single bond". The "said first single bond" is a bond which connects the first branching group of a DENDRITE to the metal complex core.

The requirement that "no hemisphere is devoid of a said first single bond" ensures that all of the geometric faces of the organometallic dendrimer core are sterically protected by a dendrite. This particular spatial arrangement of the dendrites around the core ensures that no hemisphere of the core is left sterically unprotected. As explained in the specification (and demonstrated in the Examples), this advantageously minimizes undesirable intermolecular core-core interactions and thereby improves the photoluminescence quantum yields of the dendrimers.

Furthermore, when such dendrimers are used in electroluminescent devices, the devices have improved properties such as improved luminous efficiency.

This subject matter, in particular the structural definition of the dendrimer and the requirement that "no hemisphere of a notional sphere centred on M and containing the dendrimer is devoid of a said first single bond" to a dendrite, is not disclosed in the art. Thus, to the extent that the Groups of inventions identified by the Office Action (Groups I to IV) fall within the present claims, these Groups share a "special technical feature" which defines a contribution over the art as required by Rule 13.2 PCT.

In this regard, it is noted that the subject matter of Groups II and IV does fall within the currently pending claims. Accordingly, for the aforementioned reasons, Groups II and IV comply with the unity of invention requirement of Rule 13 PCT, by virtue of sharing the above-mentioned special technical feature.

However, the specific dendrimers which the Office Action has identified as being in Groups I and III (namely compounds 1 and 2 of Figure 2 and compound C-4 in Figure 6) do not fall within the present claims because they do not meet the requirement that "no hemisphere of a notional sphere centred on M and containing the dendrimer is devoid of a said first single bond" to a dendrite. This is confirmed by the passage at page 3, lines 1 to 9 of the specification, which refers to Figure 2 and explains that, "for iridium dendrimers 1 and 2 the dendrimers are attached to one component of the bidentate ligand, namely the phenyl ring, and the facial (fac) isomers are formed. This combination leaves one face of the core unprotected by dendrons allowing potentially detrimental core-core interactions." Compound C-4 in Figure 6 also has dendrons

which are attached to only one component of the bidentate ligand, namely to the phenyl ring. Again, this leaves one face of the core unprotected by dendrons.

Accordingly, the restriction requirement in respect of Groups I and III is traversed only to the extent that the subject matter of those groups falls within the currently pending claims.

Thus, in summary, the Applicants wish to traverse the restriction requirement with respect to Groups II and IV. Furthermore, to the extent that Groups I and III fall within the scope of the currently pending claims, applicant wishes to traverse the restriction requirement with respect to Groups I and III also. Applicant wishes to traverse the restriction requirement on the grounds that all subject matter falling within pending claims 1-8, 11-14, 17-25 and 27-30 shares the special technical feature that the dendrimer is a neutral organometallic dendrimer of formula (I), with a metal complex core  $MX_xY_z$ , wherein the dendrimer has a structure in which no hemisphere of a notional sphere centred on the metal, M, and containing the dendrimer is devoid of a "said first single bond" to a dendrite.

Finally, it should be noted that each of the specific organometallic dendrimers identified by the Office Action has an iridium tris 2-phenylpyridine core. The objection that these particular dendrimers differ significantly in their core structure is therefore unfounded.

#### Conclusion

Favorable reconsideration of the restriction is respectfully requested.

An extension request is attached, and the extension fees have been paid with this electronic submission.

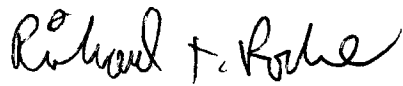
No other fees are believed to be needed for this amendment. However, if other fees are needed, please charge them to Deposit Account No. 17-0055.

Respectfully submitted,

For D.W. Samuel *et al.*

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By: \_\_\_\_\_



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